052.03 Identification of Tier I and Tier II Waters:

This briefing outlines how section 052.03.a through c as proposed in draft 5 of the preliminary proposed antidegradation rule will likely be implemented. Waters of the state are to be granted antidegradation protection based on a water body approach that uses the most recent finalized version of the 305(B) and 303(d) Integrated Report that fulfills the state's obligation to EPA to report on the current status and condition of the state's waters. Figure 1 is a flow chart outlining the decision process for determining Tier I and II waters based upon aquatic life. As per 052.03.a waters that are assessed as supporting their aquatic life uses will be Tier II waters. Waters that are not assessed will be presumed to be Aquatic Life Tier II waters unless data can be gathered showing that they are not high quality waters. Waters that do not fully support their aquatic life uses will be evaluated using biological data to determine if the biological community is being impaired or not. If the biological community indicates a healthy population (defined as a Stream/River Macroinvertebrate Index [SMI/RMI] score and/or Stream/River Fish Index [SFI/RFI] score greater than or equal to 2) then the water will be considered high quality water and afforded Aquatic Life Tier II protection. If the biological community indicates that there has been a substantial change from reference condition (SMI/RMI and SFI/RFI < 2) then the water will not be considered high quality and will only be afforded Aquatic Life Tier I protection.

Table 1: Assessment Units (AUs) and stream miles (acres for lakes) in each Aquatic Life Tier.

	Rule Section	Number Lake AUs	Size Lake AUs (acres)	Number River/Stream AUs	Size River/Stream AUs (miles)
Aquatic Life Tier II, (Fully Supporting)	052.03a	13 (6.6%)	3,135.62 (0.8%)	1,535 (30.5%)	26,469.03 (28.2%)
Presumed Aquatic Life Tier II, unassessed waters	052.03b	121 (61.4%)	162,702.73 (42.2%)	1,674 (33.3%)	33,897.64 (36.1%)
Aquatic Life Tier I	052.03c(i1)	7 (3.6%)	145.48 (0.04%)	680 (13.5%)	12,237.43 (13.0%)
Aquatic Life Tier II, (NFS* good biological data)	052.03c(i2)	3 (1.5%)	28.79 (0.01%)	503 (10.0%)	8,004.5 (8.5%)
Presumed Aquatic Life Tier II, (NFS* no biological data)	052.03c(i3)	52 (26.3%)	219,731.78 (57.0%)	588 (11.7%)	12,568.182 (13.4%)

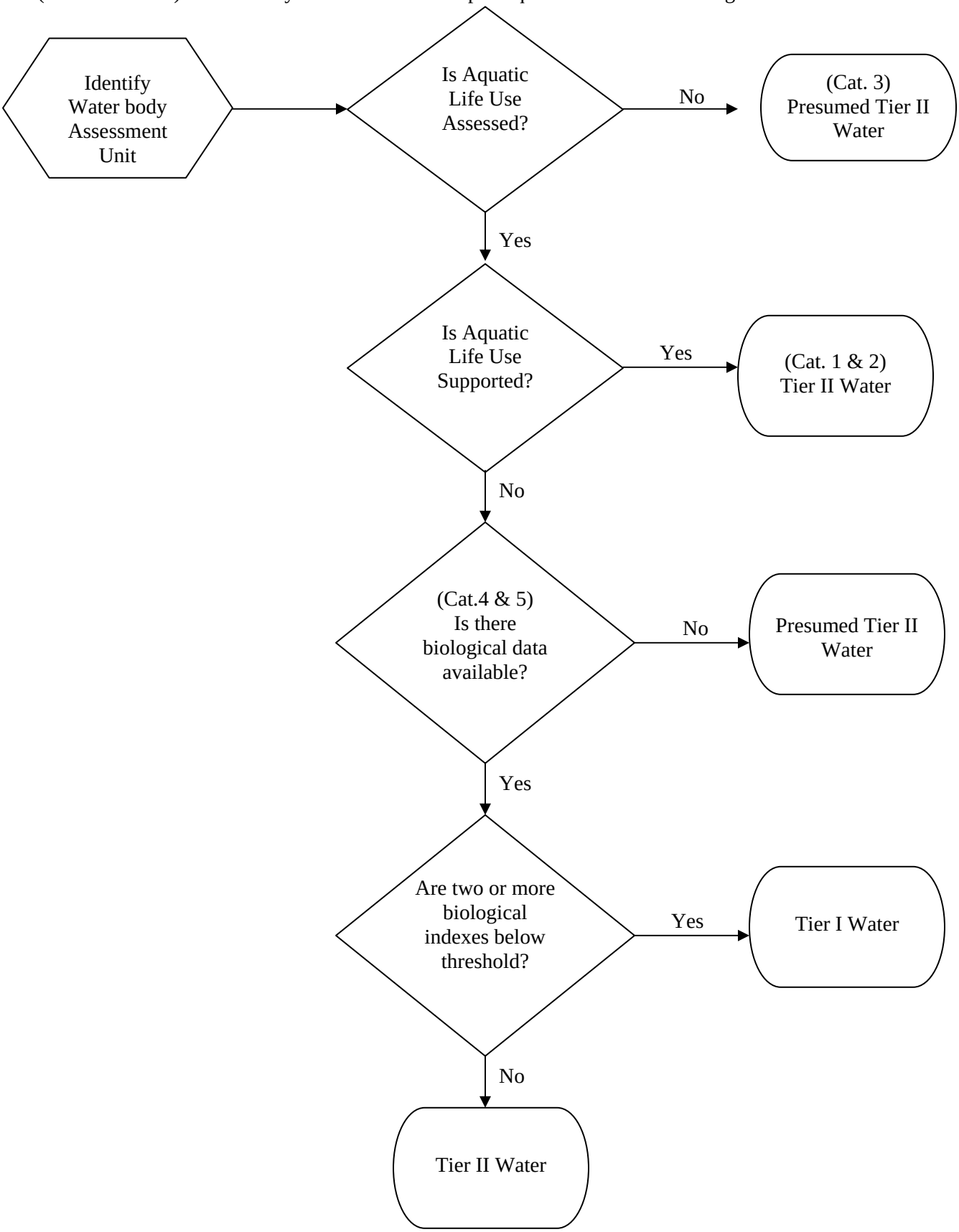
*** Not Fully Supporting**

There are 24 River/Stream AUs (329.92 miles) that do not have aquatic life uses associated with them in the database but do have biological data indicating a healthy biological community suggesting they should be afforded Tier II protection. There are also 23 River/Stream AUs (445.26 miles) and 1 Lake AU (43.86 acres) with no associated aquatic life uses but with biological data indicating an impaired biological community. Currently, these AUs are not included in the table above.

There are a total of 5,224 AUs reported in the 2008 Integrated Report corresponding to a total of 197 Lake AUs (385,788.26 acres) and 5027 River/Stream AUs (93,951.96 miles). Biological data for the purposes of determining Tier II status for not fully supporting AUs came from the

BURP database. There may be other biological data available from other agencies that were not available for this assessment.

Figure 1: Flow chart outlining decision process for determining which antidegradation level of protection (Tier I or Tier II) a water body will receive based upon aquatic life uses and biological data.



NPDES Discharges

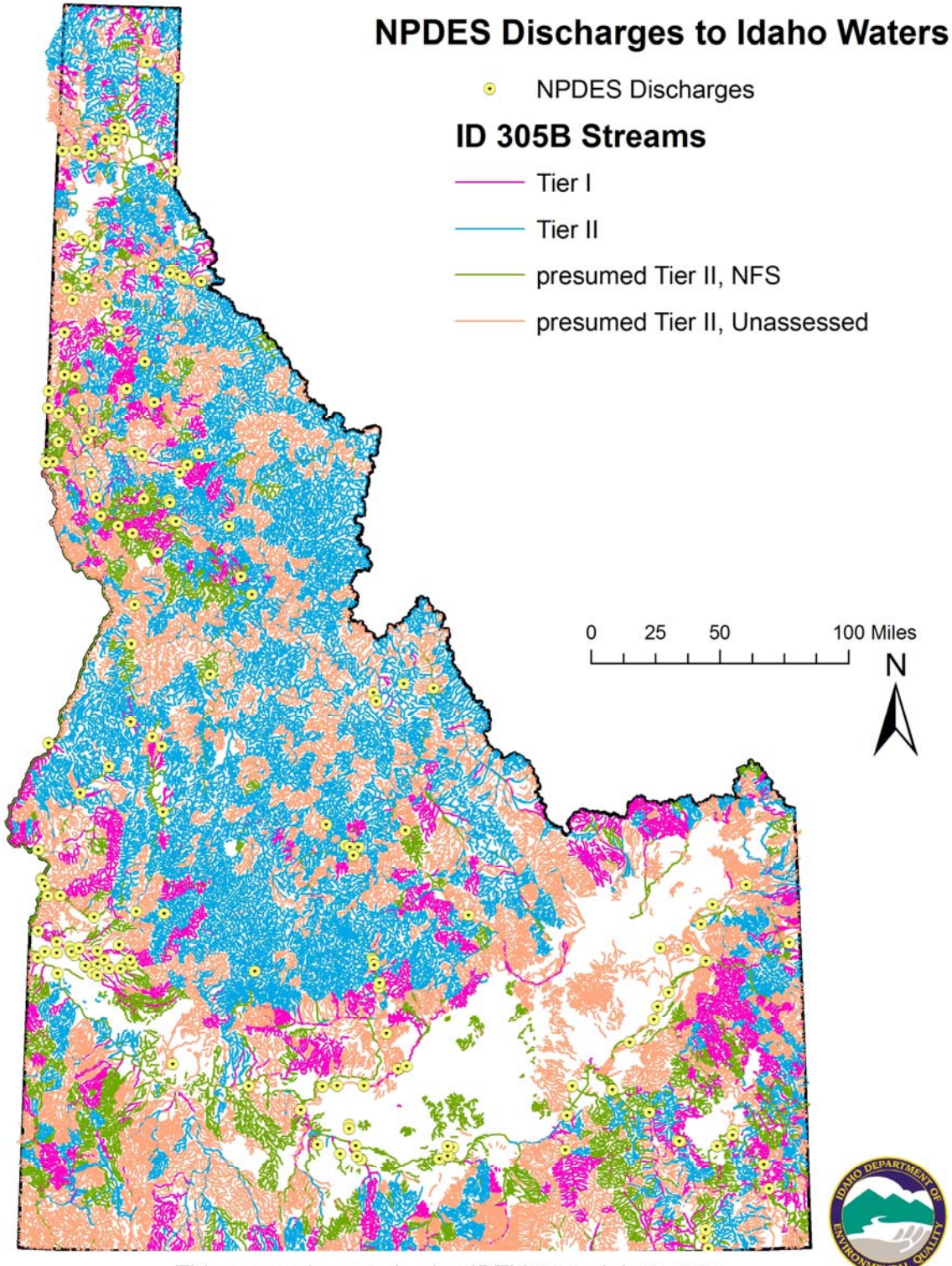
EPA provided DEQ with a listing of NPDES discharges and the corresponding receiving waters. This list was imported into ArcGIS and spatially joined to the list of 305(B) waters to determine the corresponding assessment unit. Each of the 184 permits was examined to verify that the receiving water listed in the permit corresponded to the assessment unit identified through GIS. 1 expired permit (Kootenai Water District #1 Permit ID002432-7) was not found on EPA's website list of permits in Idaho and was eliminated from further analysis. 1 pending permit (ID-DEQ Permit ID002745-6) could not be verified as the permit was not released on the web site and there was no corresponding receiving water identified in the list given by EPA. This permit was also removed from the list for further analysis.

Of the 182 permits evaluated, 97 permits have been administratively continued, 41 are effective, 28 are expired and 18 are pending. Twenty-five percent (25%) of all permits discharge to Aquatic Life Tier I waters, 10.87% discharge to Aquatic Life Tier II waters and 64.13% discharge to presumed Aquatic Life Tier II waters. Table 2 details the presumed Aquatic Life Tier II waters further.

Table 2: Discharge permits to presumed Aquatic Life Tier II waters

Permit Status	# of Permits	Reason for presumed Aquatic Life Tier II	Rule Section
ADC	19 (10.4%)	Unassessed water	052.03b
ADC	46 (25.3%)	Not fully supporting uses, no biological data available	052.03c(i3)
EFF	9 (4.9%)	Unassessed water	052.03b
EFF	20 (11.0%)	Not fully supporting uses, no biological data available	052.03c(i3)
EXP	10 (5.5%)	Unassessed water	052.03b
EXP	8 (4.4%)	Not fully supporting uses, no biological data available	052.03c(i3)
PND	3 (1.6%)	Unassessed water	052.03b
PND	3 (1.6%)	Not fully supporting uses, no biological data available	052.03c(i3)
All permits	**41 (22.5%)**	**Unassessed water**	**052.03b**
All permits	**77 (42.3%)**	**Not fully supporting uses, no biological data available**	**052.03c(i3)**

ADC = Administratively continued; EFF = Effective; EXP = Expired; PND = Pending



This mapped created using IDTM83 on July 7, 2010.

Recreational Uses

Classifying waters into Tiers using recreational uses was also done. However, there were 16 different scenarios that arose when evaluating the data in the database. The most straightforward scenarios are when the primary and secondary contact recreational uses are assessed and agree. For example, PCR and SCR Use Attainment is F for 17 AUs which corresponds to 535 miles and 7.7 acres. This situation is easily classified as Tier II. Tier I classifications that were simple included those situations where PCR and SCR were both N or where one was N and the other was blank. This corresponded to 7 AUs (68 miles and 22 acres) for the first and 318 AUs (5,859 miles and 14,692 acres) in the latter case.

Table 3: Final classification of antidegradation tiers for contact recreational uses.

Overall Contact Recreation Tier	# of AUs	Size River miles (Lake acres)
Tier I	357	6,925 (25,807)
Presumed Tier II	3100	57,115 (352,870)
Tier II	1767	29,912 (6,930)

There were two cases that arose that were explored further. One was AU ID17040220SK023L_0L which was listed as full support for primary contact and not full support for secondary contact. Upon further examination, this AU is listed as impaired for mercury which causes a not full support assessment for secondary contact recreation. However, because the E. Coli (bacteria) results are below criteria it does support primary contact recreation. The other case is AU ID17040221SK008_03 which lists primary contact recreation as not fully supporting and secondary contact as fully supporting. This listing is based upon E. Coli results being above the criteria. I could not find any further documentation in ADB discussing this issue. In both cases, I assigned a Tier I classification to the AU.

Unassessed Waters

A concern regarding the presumption of Aquatic Life Tier II for unassessed waters was expressed during the negotiations. To evaluate whether this presumption is accurate the 2002 Integrated Report was compared to the 2008 Integrated Report. Those assessment units listed as unassessed in 2002 were evaluated to determine first if an assessment call had been made and second to determine the antidegradation tier for that the assessment unit.

For 2008 there were a total of 167 assessment units that were assessed. Of those, 17 were assessed as not full support and classified as Tier I. 63 were assessed as full support and are Aquatic Life Tier II, 29 were assessed as not full support but had healthy biological communities and classified as Aquatic Life Tier II. The remaining 58 assessment units were assessed as not full support but do not have biological data available at this time. There were 6 lake AUs among

the 58 classified as presumed Aquatic Life Tier II corresponding to 18,200 acres. Table 4 details these results for the river and stream assessment units.

Table 4: 2008 Integrated report assessment results of 2002 unassessed waters.

2008 Assessment	Aquatic Life AD Tier	# in Tier	Miles	% of AUs (% of miles)
Not Full Support	I	17	227.75	10.6 (9.2)
Full Support	II	63	1182.89	39.1 (47.8)
Not Full Support	II	29	330.08	18.0 (13.3)
Not Full Support	presumed II	52	734.93	32.3 (29.7)

As Table 4 shows, of the unassessed waters from 2002 a majority of the assessment units were classified as Aquatic Life Tier II waters once assessed (57%). Nearly 11% were classified as Aquatic Life Tier I and 32% were classified as a presumed Aquatic Life Tier II.